

## CLAIMS

What is claimed is:

5           1.     A computer program product comprising computer executable instructions defining a model execution application, the model execution application implementing a meta-model which is adapted to be populated with user inputs to generate one or more models, the meta-model being structured as a number of concepts, each concept having a number of properties, and  
10           one or more relationships between the properties of one or more of the concepts, wherein the relationships are defined as a concept within the meta-model.

            2.     A computer program product according to claim 1, in which the  
15           meta-model includes an active concept which can be populated with software components.

            3.     A computer program product according to claim 1, in which the model execution application comprises a computer program code portion that  
20           provides access to the meta-model and which is adapted to accept user inputs to allow a model to be generated.

            4.     A computer program product according to claim 1, in which the model execution application comprises a program code portion that provides  
25           access to models generated using the meta-model so that the models can be executed by one or more users.

            5.     A computer program product according to claim 1, in which the model execution application comprises an infrastructure model defined in  
30           terms of the meta-model that facilitates the execution of the meta-model and any models generated using the meta-model.

6. A computer program product according to claim 5, in which the infrastructure model is adapted to accept user defined implementation data inputs to populate the infrastructure model.

5 7. A computer program product according to claim 5, in which the infrastructure model is adapted to present a user interface that allows the meta-model to be installed and executed by a user.

10 8. A computer program product according to claim 5, in which the infrastructure model comprises an install model defining the installation of the computer program product.

15 9. A computer program product according to claim 1, in which at least one of the properties of each concept represents a primary key, the primary key being unique for each instance of the concept.

20 10. A computer program product according to claim 1, in which when a second concept is related to a first concept, one of the properties of the second concept represents a foreign key, the foreign key corresponding to the primary key of the first concept and representing the relationship between the two concepts.

25 11. A computer program product according to claim 1, in which the meta-model is adapted to be populated by data, each concept defining a respective data table, and each property defining a respective column within the table.

30 12. A computer program product according to claim 11, in which the data tables are populated by entering instance data representing an instance of the respective concept, the instance data being entered within a respective row of the data table.

13. A computer program product according to claim 12, wherein the instance data specifies the properties of the instance of the concept.

14. A computer program product according to claim 1, in which the  
5 meta-model includes a "Concept" concept defining the concepts of the model to be defined, the properties of the "Concept" concept defining the properties of the concepts of the model to be defined.

15. A computer program product according to claim 14, in which the  
10 meta-model includes a "ConceptProperty" concept which is related to the "Concept" concept, each instance of the "ConceptProperty" concept defining the properties of a respective concept defined in the "Concept" concept.

16. A computer program product according to claim 14, in which the  
15 meta-model includes a "ConceptKey" concept related to the "Concept" concept, each instance of the "ConceptKey" concept identifying the primary key of a respective concept defined in the "Concept" concept.

17. A computer program product according to claim 14, in which the  
20 meta-model includes a "ConceptRel" concept related to the "ConceptKey" concept, each instance of the "ConceptRel" concept identifying the relationships between the concepts defined in the "Concept" concept.

18. A computer implemented method of generating a software  
25 application comprising the steps of:

populating a meta-model with data to define a model; and,

associating said model with a predefined infrastructure model by  
populating the infrastructure model with implementation data associated with  
said model so as to define an executable specific software application.

30

19. A computer program product comprising computer executable  
code for building software applications, the computer program including a  
model execution application implementing a meta-model that is adapted to be

populated with user inputs to generate one or more models, the model execution application also including a predefined infrastructure model, the program being adapted to:

5        populate the meta-model with data input by a user to generate a model; and,

      associate said model with the predefined infrastructure model by populating the infrastructure model with implementation data associated with said model input by a user so as to define an executable specific software application.

10

20.    A computer implemented method of executing a business domain model, the business domain model modelling the semantics of the business domain and being defined in terms of a meta-model, the method comprising the step of associating the business domain model with an  
15    infrastructure model, the infrastructure model being defined in terms of the meta-model, to define an executable specific software application, in which the infrastructure model is populated with implementation data associated with the business domain model.

20        21.    A method or computer program product according to claim 18, in which the infrastructure model is defined in terms of the same meta-model.

22.    A method or computer program product according to claim 18, in which the meta-model is structured as a number of concepts, each concept  
25    having a number of properties, and one or more relationships between the properties of one or more of the concepts, wherein the relationships are defined as a concept within the meta-model.

23.    A method according to claim 18, in which the meta-model is  
30    used to define a business domain model that represents a business or a part thereof.

24. A method of modelling a business domain comprising the steps of: dividing the business domain into a number of core concepts, each core concept having a number of properties and representing a self contained function of the business domain;

5 determining the relationships between the core concepts; and,  
populating a meta-model with data representing the core concepts and the relationships there between to thereby model the business domain.

25. A method according to claim 24, in which the meta-model is  
10 structured as a number of concepts, each concept having a number of properties, and one or more relationships between the properties of one or more of the concepts, wherein the relationships are defined as a concept within the meta-model.

26. A method according to claim 24, in which the business domain  
15 model is defined by:

dividing the business domain into a number of core concepts, each core concept having a number of properties and representing a self contained function of the business domain;

20 determining the relationships between the core concepts; and,  
populating the meta-model with concept data representing the core concepts and the relationships there between.

27. A computer program product comprising computer generated  
25 code mirroring a business domain, the computer program product including a business domain model which models the semantics of the business domain, and an infrastructure model which models the infrastructure of the business domain, wherein the business domain and infrastructure models are defined in terms of a meta-model, the meta-model comprising a number of concepts,  
30 each concept having a number of properties, and one or more relationships between the properties of one or more of the concepts, wherein the relationships are defined as a concept within the meta-model.

28. A computer program product comprising computer executable code for defining a model, the computer program implementing a meta-model which, when populated with user input data, defines the model, the meta-model comprising:

5 a number of concepts, each concept having a number of properties;  
and,

one or more relationships between the properties of one or more of the concepts,

10 wherein the relationships are defined as a concept within the meta-model such that the meta-model can be described in terms of the concepts and relationships defined therein.

29. A computer program product according to claim 28, the computer program product being adapted to define a business model, the  
15 business model comprising:

an infrastructure model which models the business infrastructure; and,  
a business domain model which models the semantics of the business.

wherein the business domain and infrastructure models are defined in terms of a meta-model.